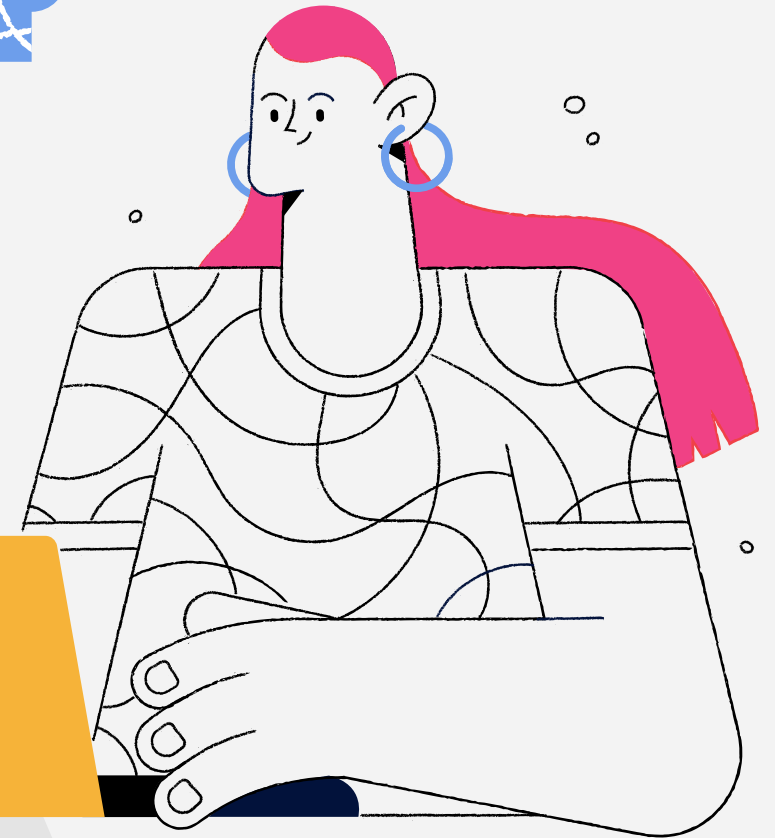
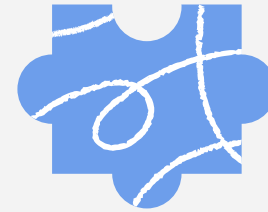


# Digital Inclusion of Refugees in Canada

Janine Stowe | Rhea Nambiar | Pedro Suing | Nafeha Khan



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Introduce the background and context we are working in.

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**03**

## **Proposed Solution Design**

What are we proposing and why is this worthy for us to explore?

**04**

## **Human Factor**

What are the human factors considered when designing the solution?

**05**

## **Business Context**

Business Model Canvas  
Value Proposition Canvas

**06**

## **Implementation**

How to implement this solution and who will our key partners be?  
How do we define the criteria for success?

# 01

## Recap

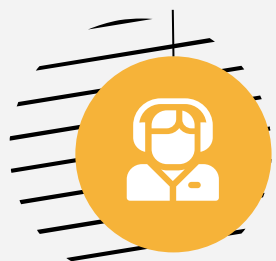
Digital inclusion is about access to information and communication technology (ICT) and the resulting social and economic benefits.

ICT includes:

- Internet Access
- Data
- Communications Technology
- Transactions
- Hardware
- Software
- Cloud Computing

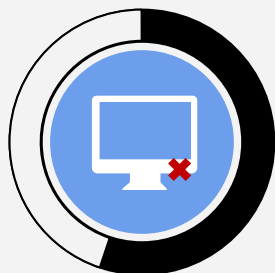


# A Digital World, A Digital Divide



**5.7 M**

Students and their families expected to continue schooling via remote learning



**58%**

Households do not have enough devices for all the members



**50%-60%**

No reliable internet and mobile connection

**Absenteeism**

**Educational Disengagement** **Poor Literacy**  
**Isolation**

**Drop-out**



# Barriers

**01 Digital Literacy**

**02 Language**

**03 Inconsistency**

**04 Connectivity**

**05 Financial Resources**

**06 Access to Devices**

- ○ ○ ○
- ○ ○ ○

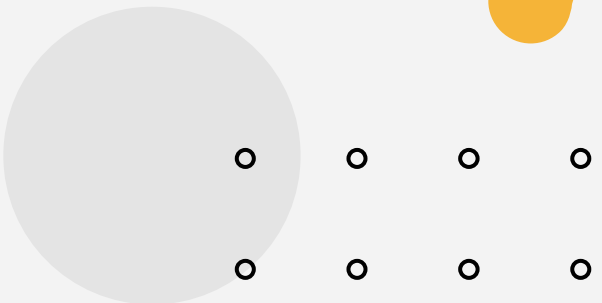
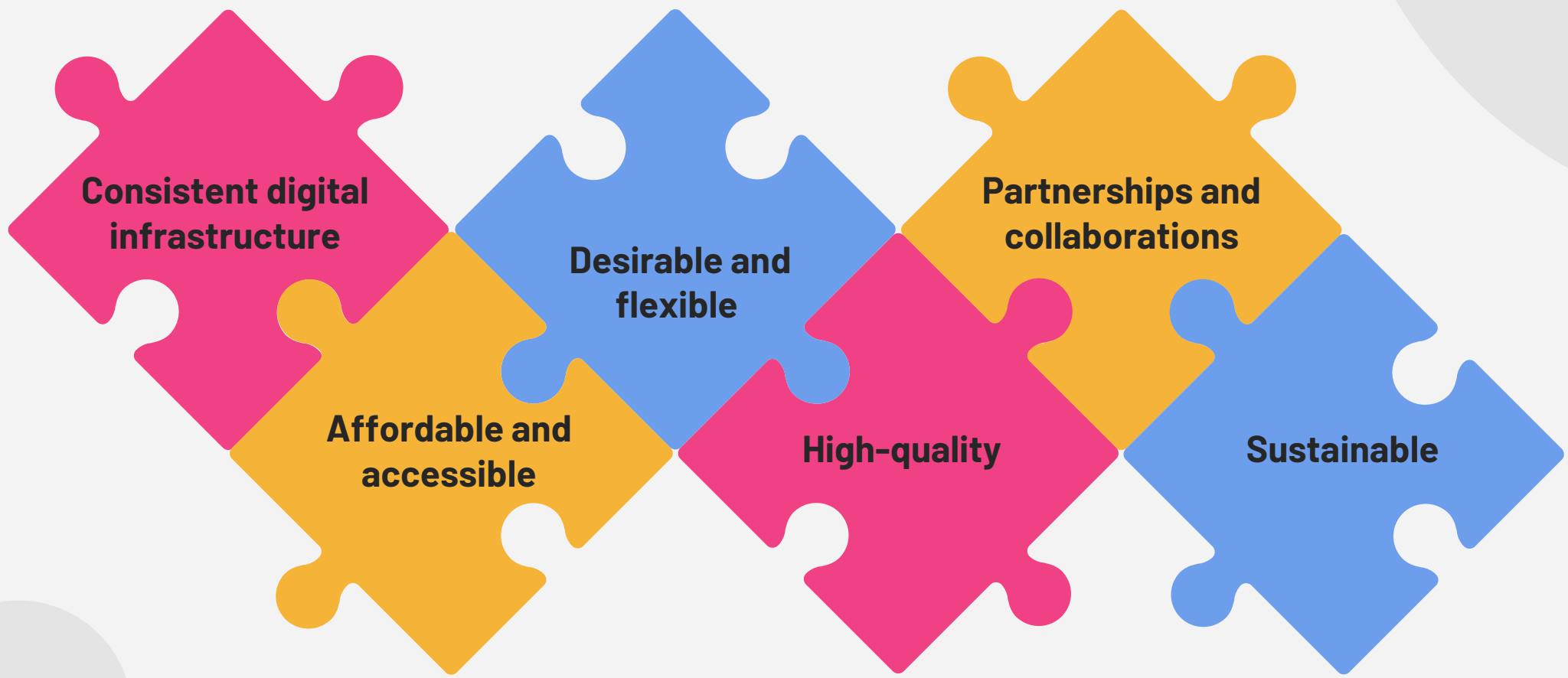
## 02

# Problem Statement

How might ICT better serve school-aged refugee children in Canada, to help them learn, stay connected, and obtain opportunities—now and in future situations where online learning and access to in-person learning is limited.



# Drivers for Solution

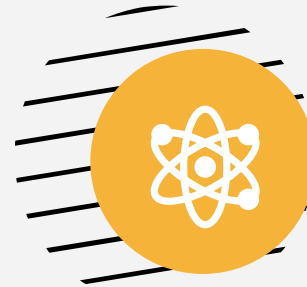


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- ○ ○ ○

# Opportunity Areas

## Partnership and Collaboration

Use of shared community space to facilitate learning.



## Coordination and Connectivity

Having multiple channels to connect with the students and families to create an inclusive experience.

## Schools and Teachers

Better training on the applications and platforms for use in delivering online learning.



## Devices

Receiving devices and instructions on how things work in Canada, before they even arrive.



# Background for Solution

- Refugee parents often find themselves having a tough time understanding the school system
- School resources are often disseminated through websites and emails



**80%**

Refugees have  
mobile phones



**49%**

Do not have email  
addresses



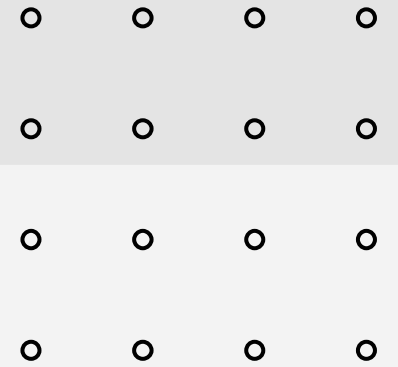
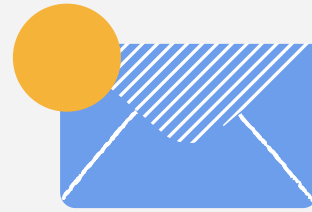
**39%**

Use mobile  
phones for email



**90%**

Use mobile phones for  
general communication



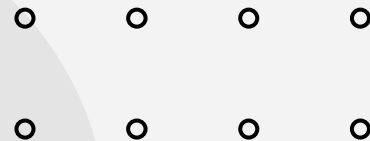
“Tech has done a lot of good unintentionally for refugees...WhatsApp, Facebook...without being developed specifically for refugees, these have addressed their problems...”

–Mark Hetfield, Websummit (2018)

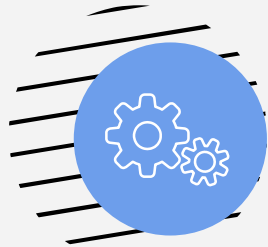


# Problem

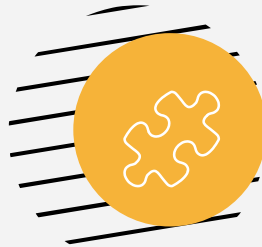
Dissemination of school information and resources among refugee population is often limited to emails or websites. To the refugee parents, these modes of communications may feel confusing, inaccessible, and impersonal. Whereas WhatsApp, Facebook, and messenger are ICT's they are comfortable and accustomed to using.



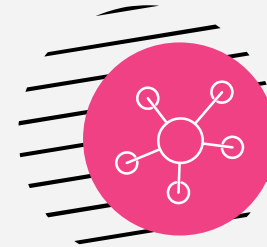
# Criteria for Solution



**Use accessible technology**



**Use existing technology**

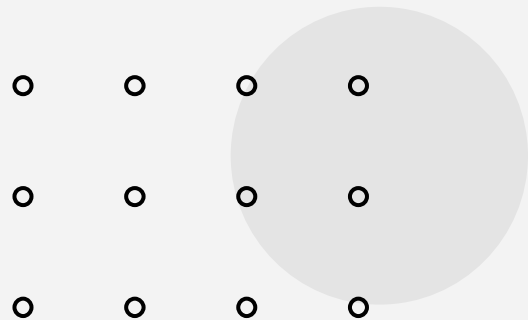


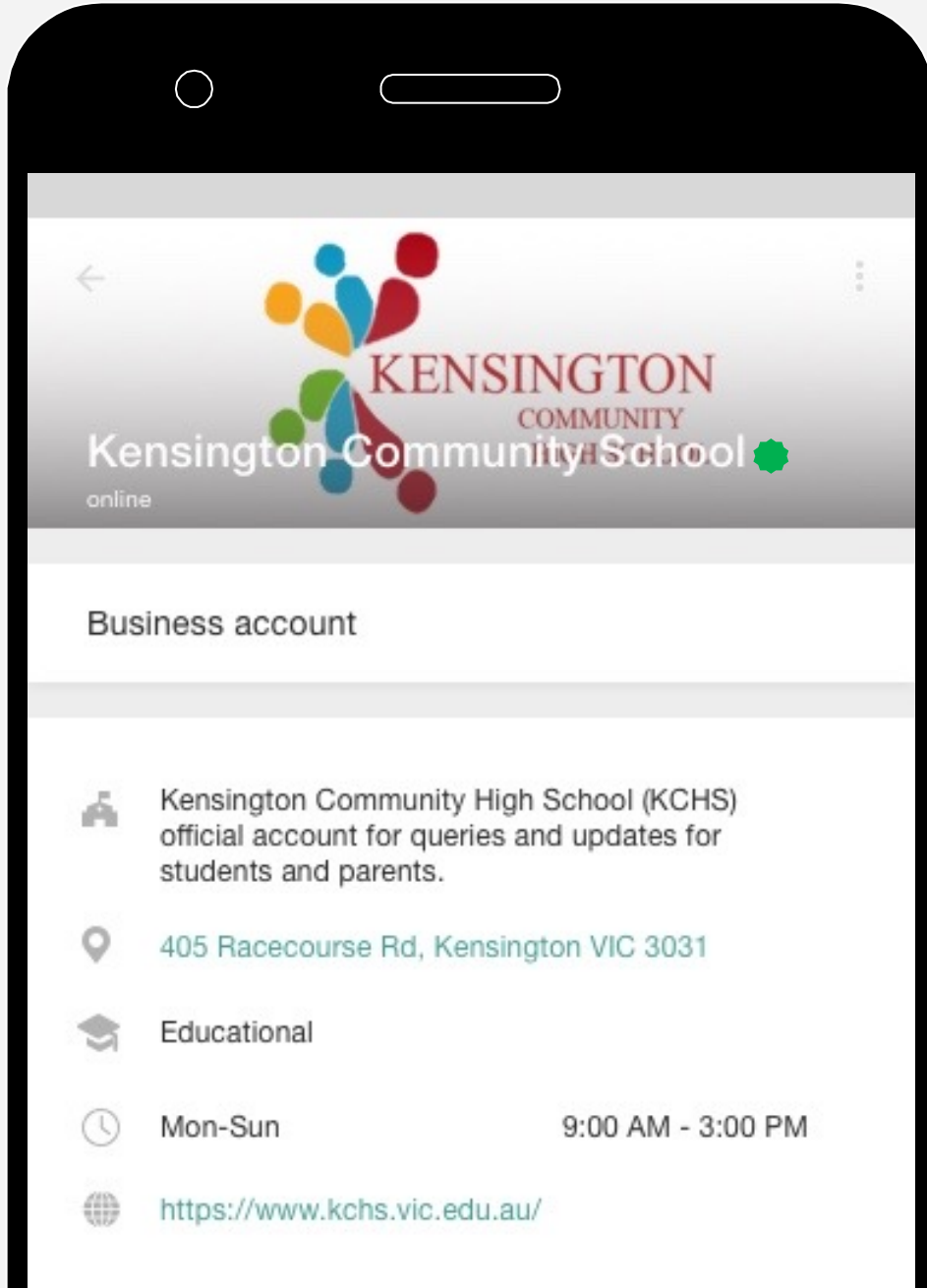
**Collaborate to create a custom solution**

- ○ ○ ○
- ○ ○ ○

# 03

## Proposed Solution Design





# Solution

Using **WhatsApp Business** as an accessible communication channel for schools to provide the refugee population with school information and resources

# Features



01

## Chatbot Service

Conversational bot that can help with basic queries and feedback



- 24x7 availability
- Interactive
- Multi-lingual

02

## Curriculum and Resources

Connect with existing school resources



- Schedule appointments
- Access due dates
- Additional educational resources

03

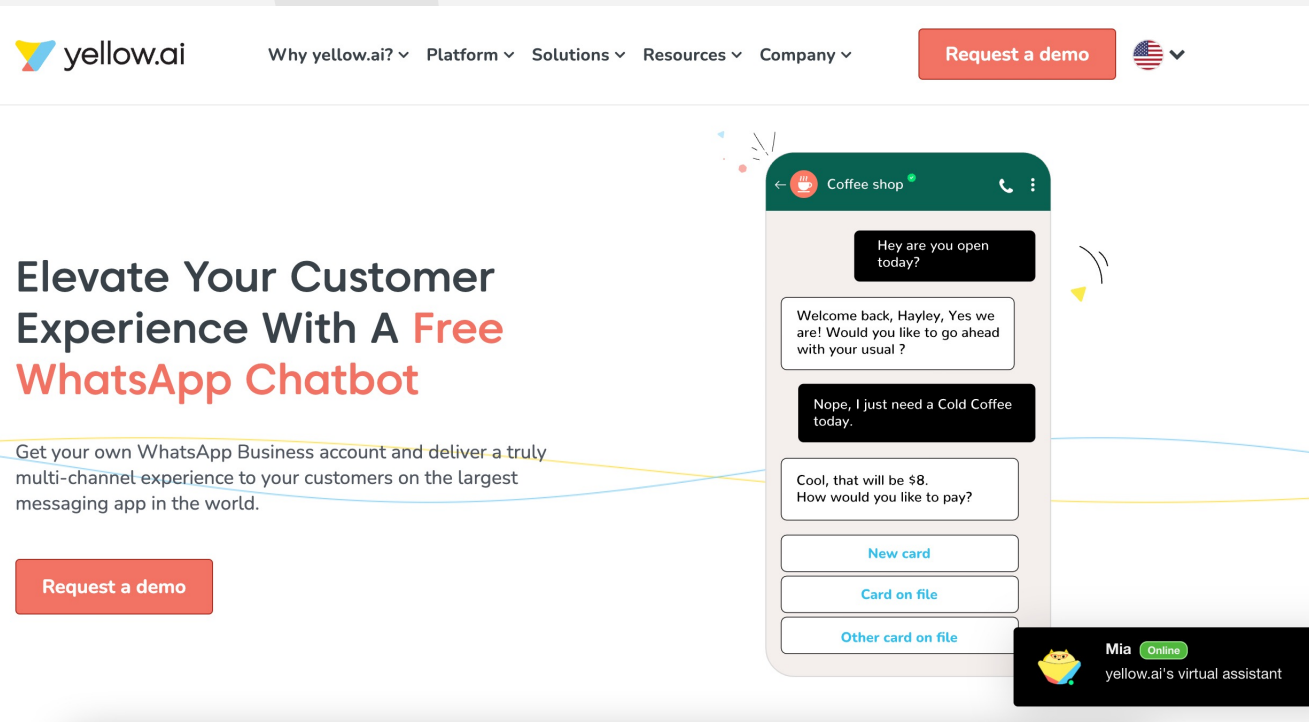
## School Updates

Get up-to-date information on schools activities



- Relevant updates
- Never miss an opportunity

# How it works?



The screenshot shows the yellow.ai website header with navigation links: Why yellow.ai?, Platform, Solutions, Resources, Company, and a Request a demo button. Below the header, the main content area features the heading "Elevate Your Customer Experience With A Free WhatsApp Chatbot" and a sub-headline "Get your own WhatsApp Business account and deliver a truly multi-channel experience to your customers on the largest messaging app in the world." A "Request a demo" button is also present. The central focus is a simulated WhatsApp chat window for a "Coffee shop" with the following messages:

- Customer: "Hey are you open today?"
- Chatbot: "Welcome back, Hayley, Yes we are! Would you like to go ahead with your usual ?"
- Customer: "Nope, I just need a Cold Coffee today."
- Chatbot: "Cool, that will be \$8. How would you like to pay?"
- Buttons: "New card", "Card on file", "Other card on file"
- Footer: "Mia Online yellow.ai's virtual assistant"

Along with features of WhatsApp Business, additional Application Programming Interface (API) integrations are required to support the features.

Yellow.ai provides:

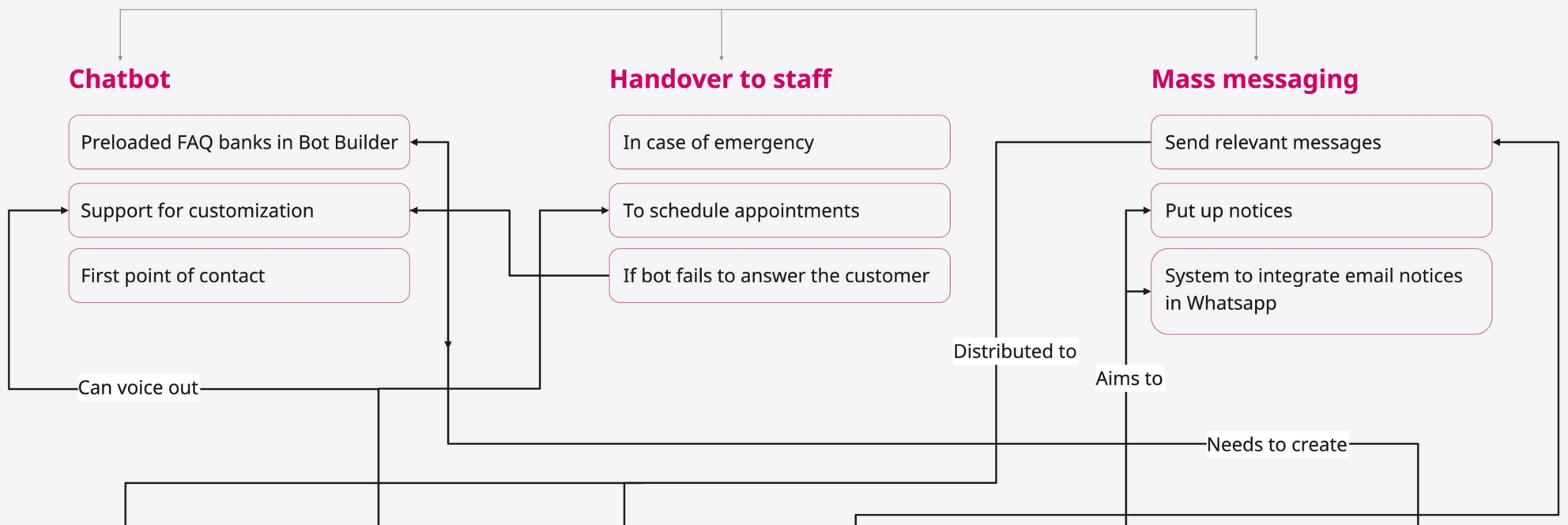
- **AI chatbot** for automated and personalized customer support
- **Conversational AI** to connect with customers in a human way
- **Training** to customers on using the software and building bots



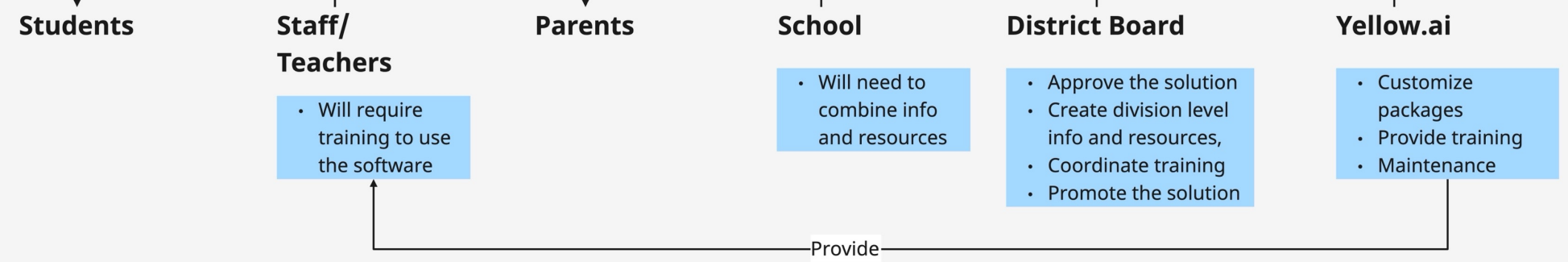




**Services**

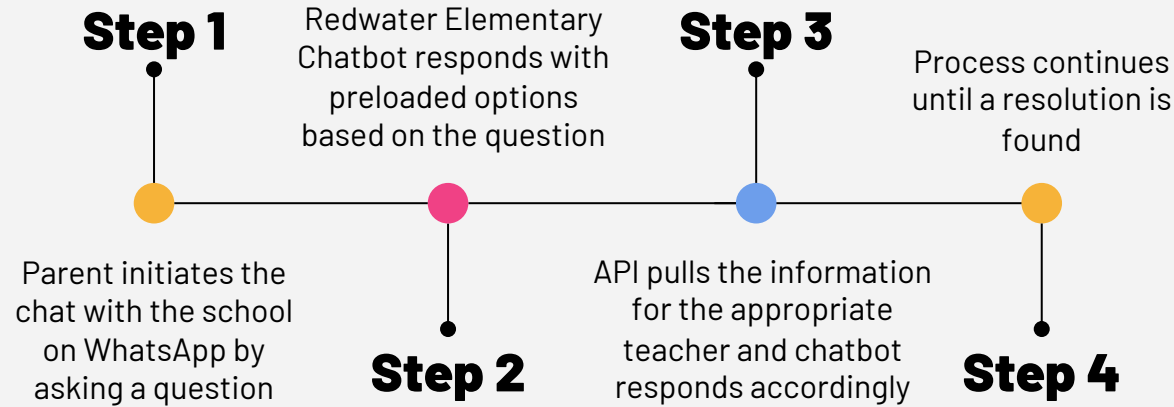


**Stakeholders**

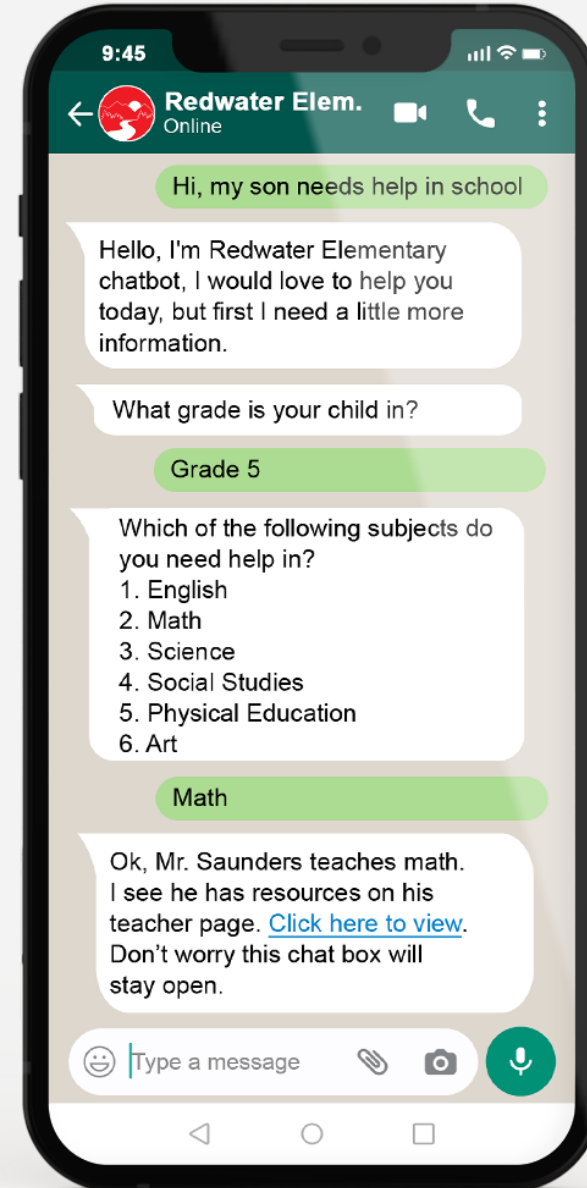


# Prototype: Schools

**Example:** A parent is looking to find help for their child who is struggling to complete math homework.

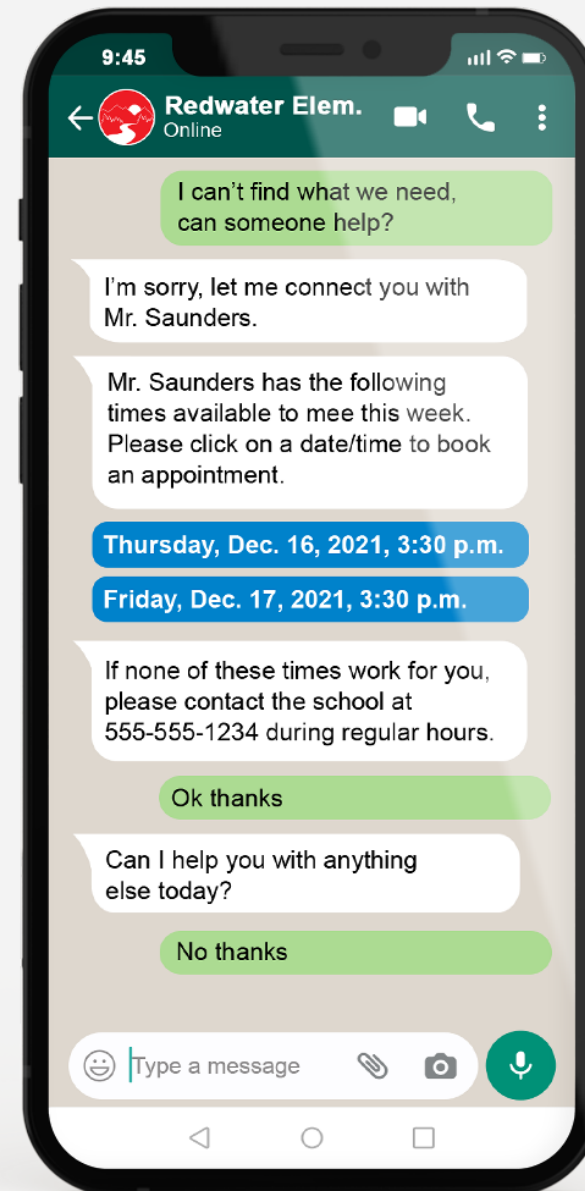
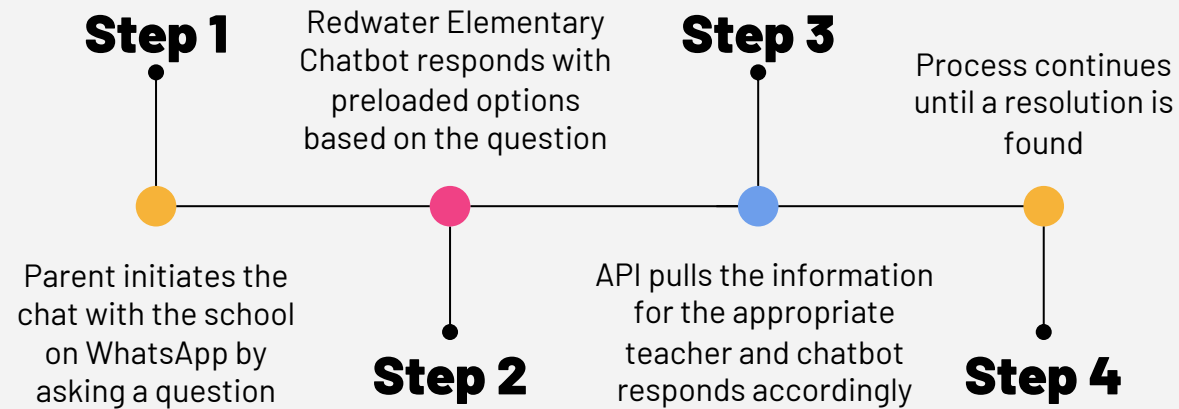


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# Prototype: Schools

**Example:** A parent is looking to find help for their child who is struggling to complete math homework.



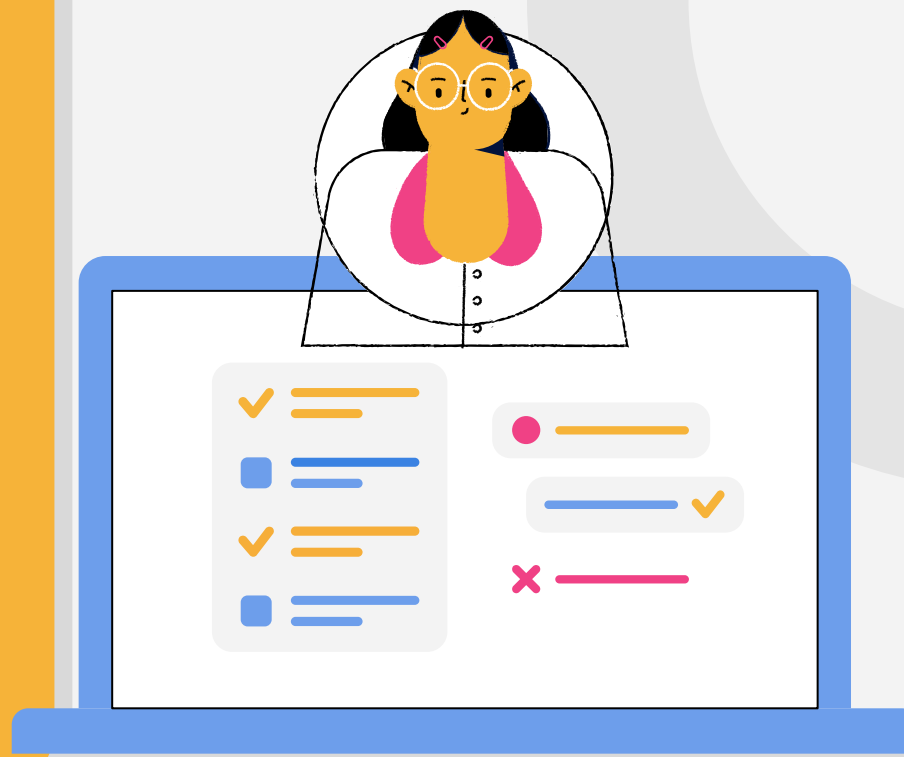
# Packages

## District Basic Plan

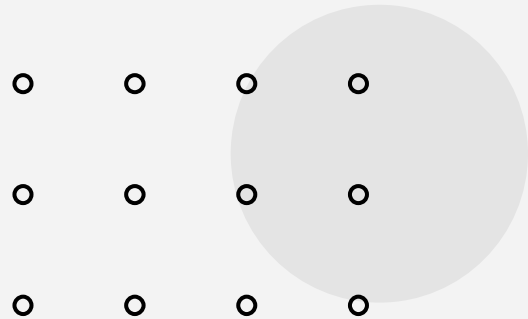
- General information about registration and busing
- Special support with language and inclusion
- District-wide dates and events

## School Premium


- Information specific to schools
- Appointments with school and staff members
- School calendar and events
- Information about curriculum and homework



# 04 Human Factor

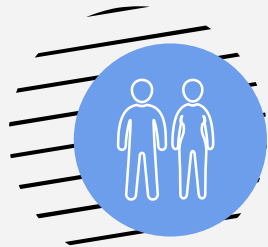


# Human Factor Analysis



	<b>Parents</b>	<b>Students</b>	<b>Teachers/ Staff</b>
<b>Motivation</b>	Community, integration, and achievement	Access, ease, and privacy	Streamline, save time and duplication
<b>Culture</b>	Adaptation and acculturation	Educational culture	Boost parent engagement
<b>Knowledge</b>	Uses existing knowledge	Information processing and recall	Adopting new ICT

# Motivations



## Parents

Child's Achievement  
Need for Affiliation



## Students

New interaction  
opportunities  
Easy and fast access



## School

Intrinsic motivation from  
teachers  
Engaged audience

# Culture

## Educational Culture

Set of new  
behaviours, norms, and  
values

## Language

Communication skills

## Cultural adjustment

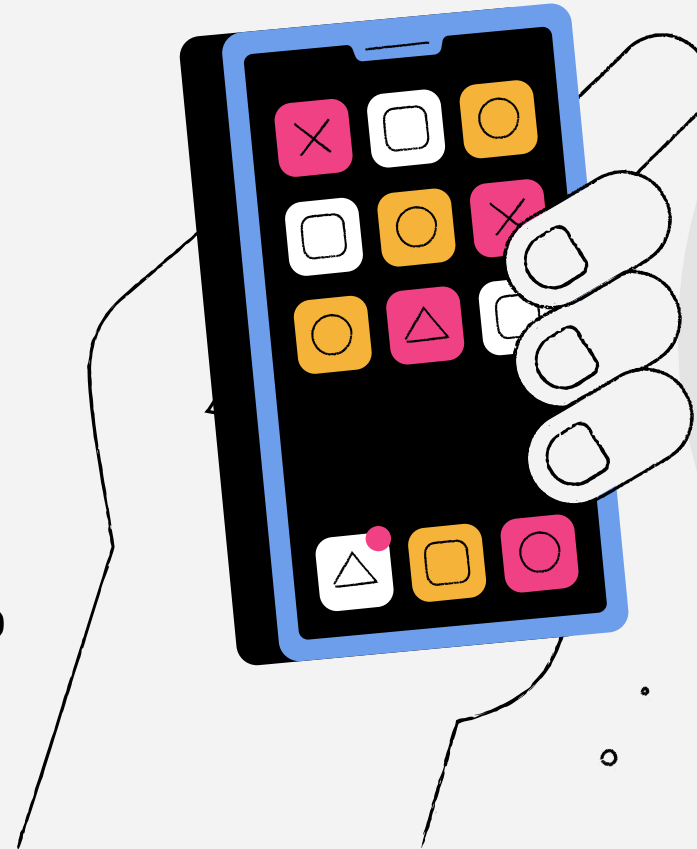
Unwritten rules and  
relationships



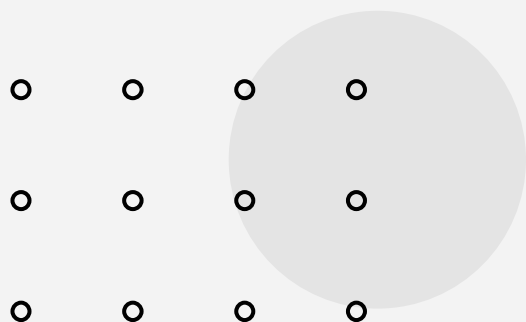
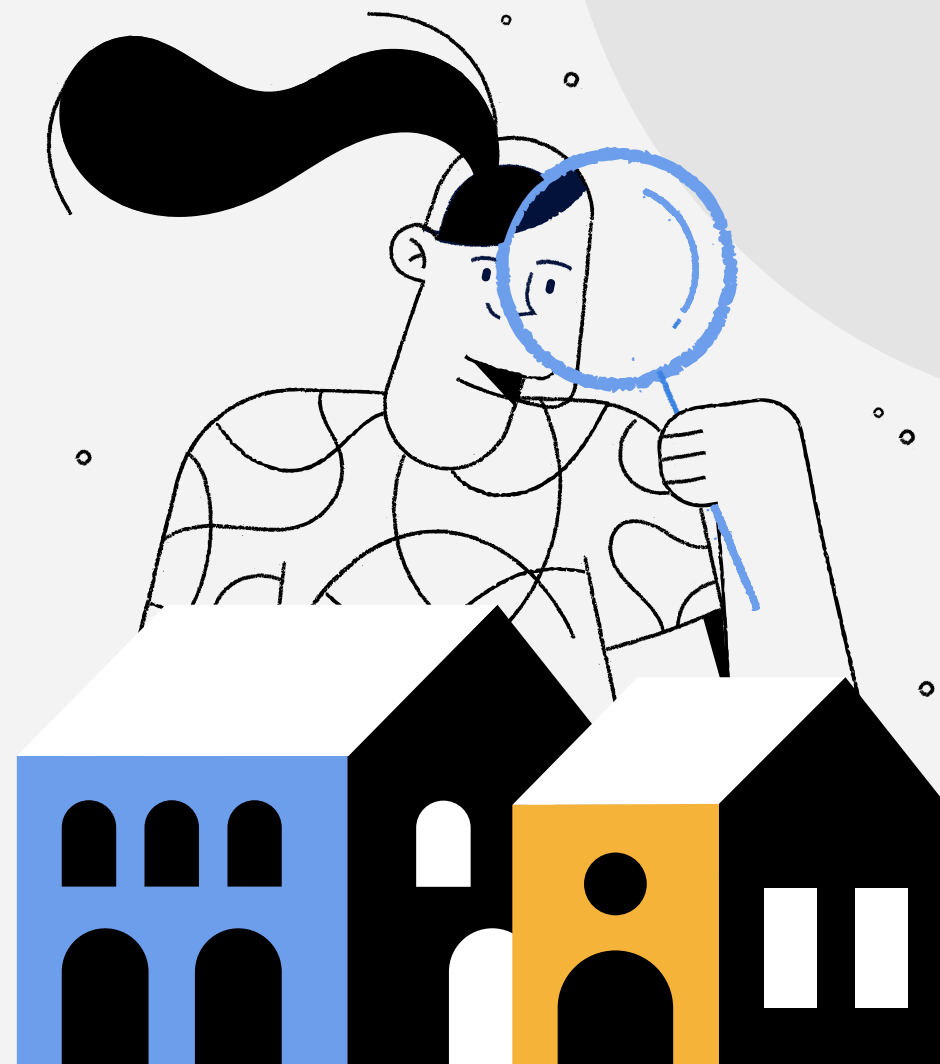


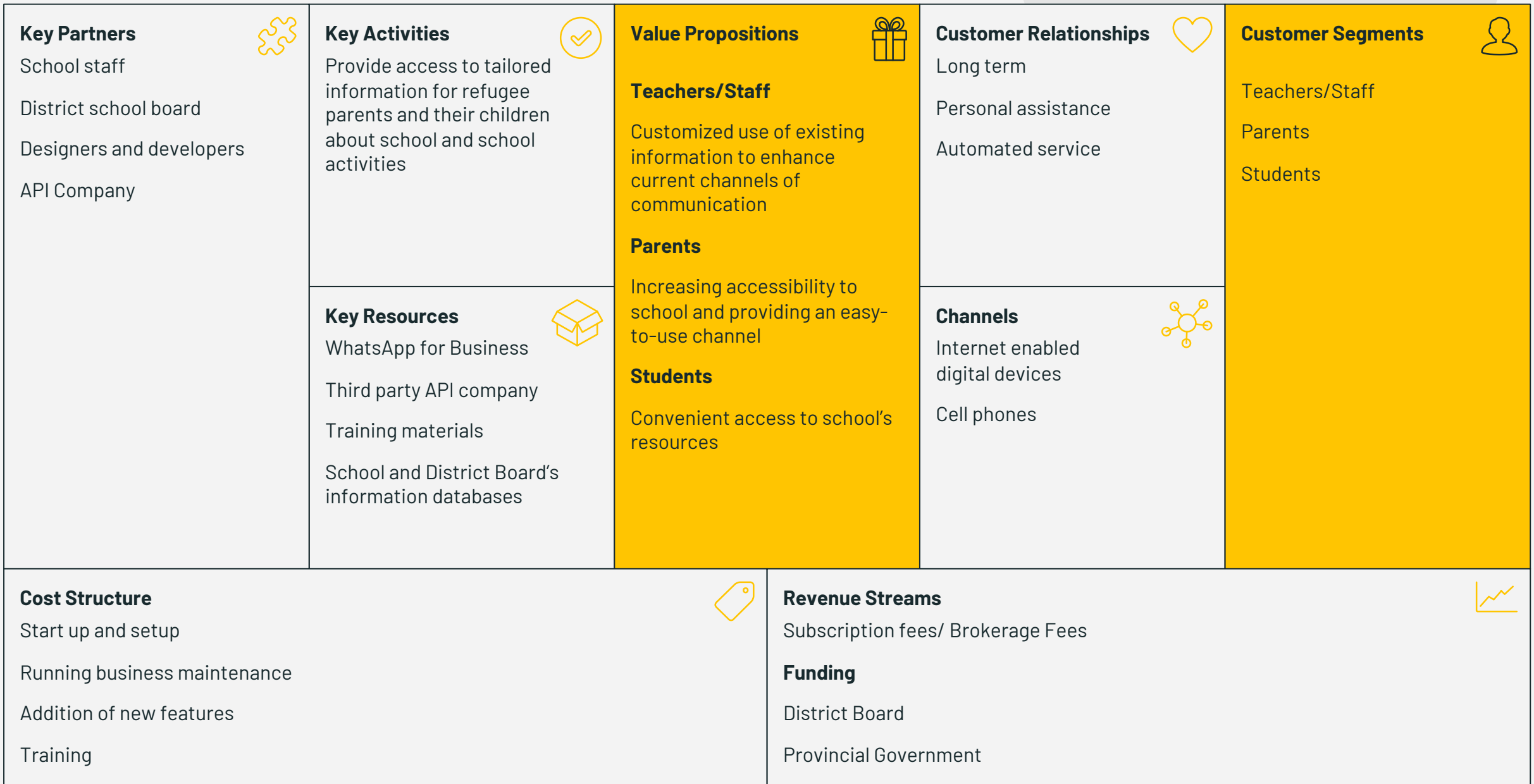
# Knowledge

- One of their main reason to use WhatsApp as part of our solution is that there is prior knowledge from parents using the app and they are familiar with it.
- Students will have easy access to this digital information at their finger tips.
- Absorptive capacity will be seen when teachers and school staff start adopting to the new ICTs.

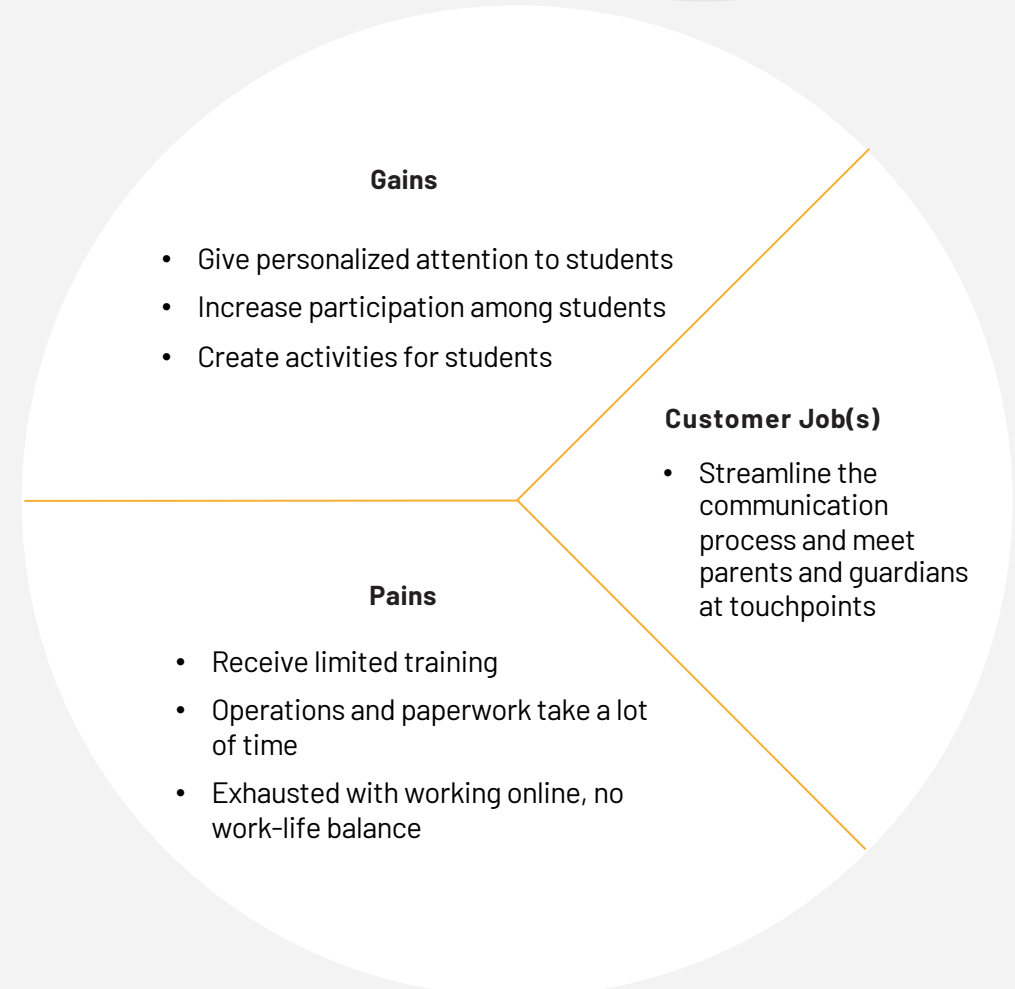
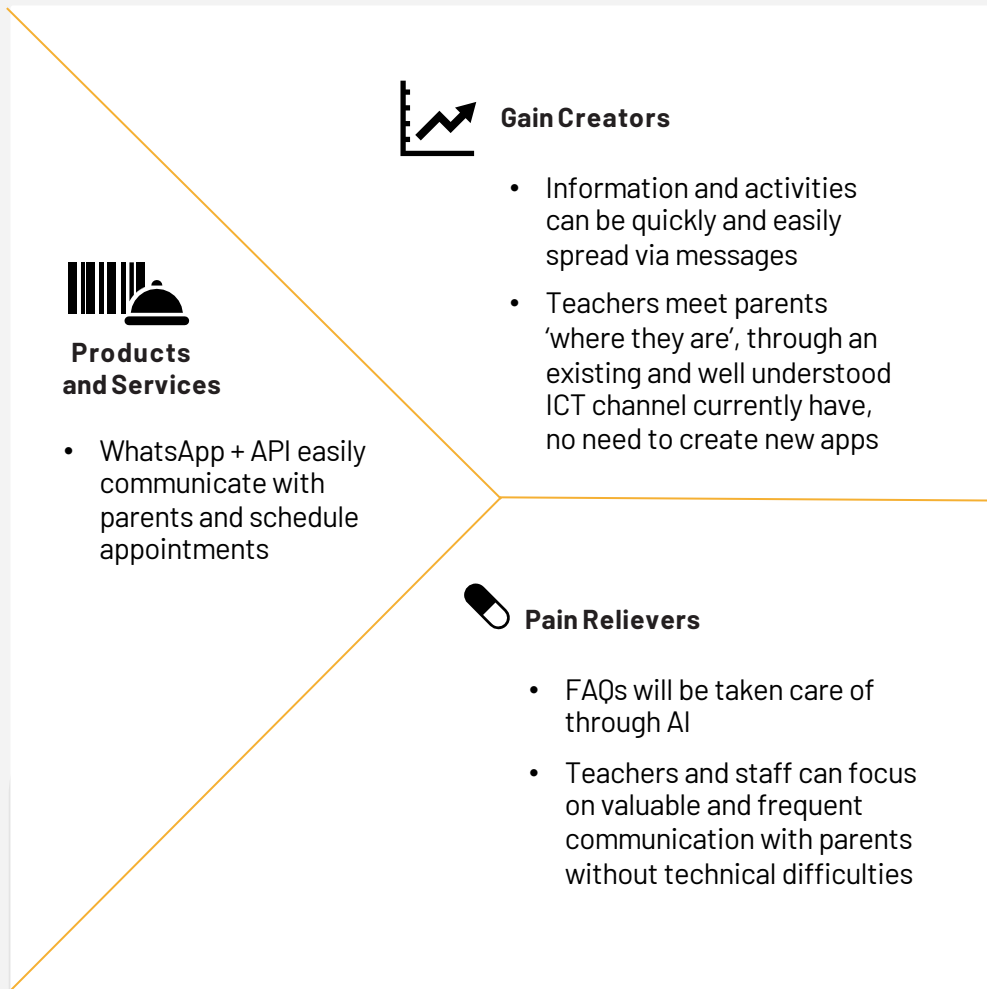


# 05 Business Context

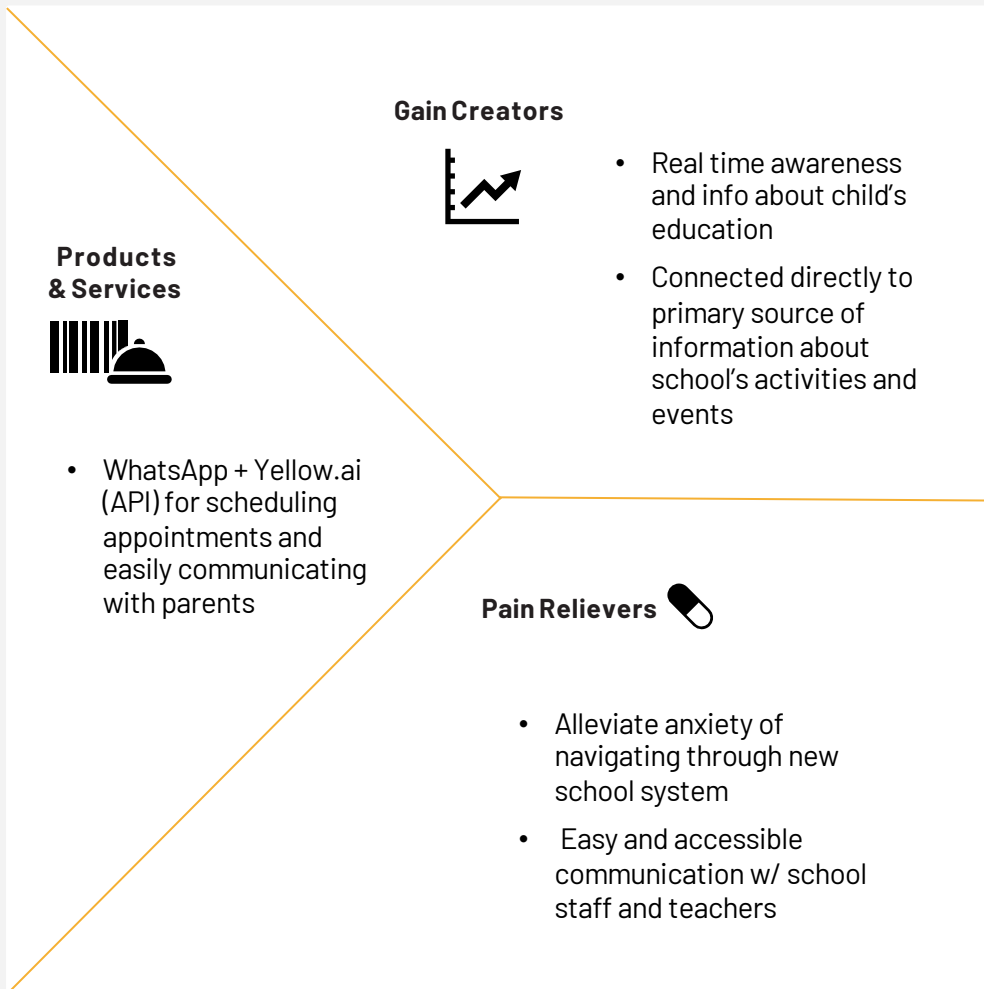




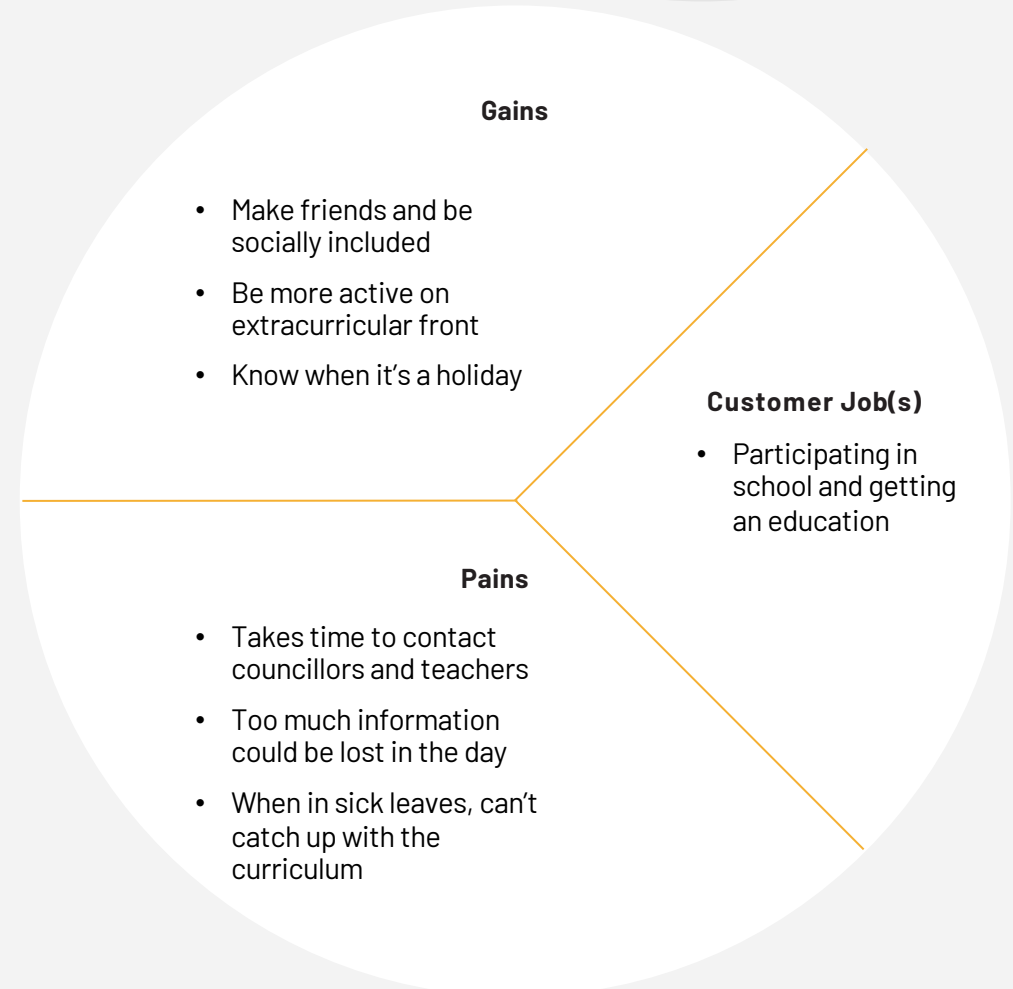
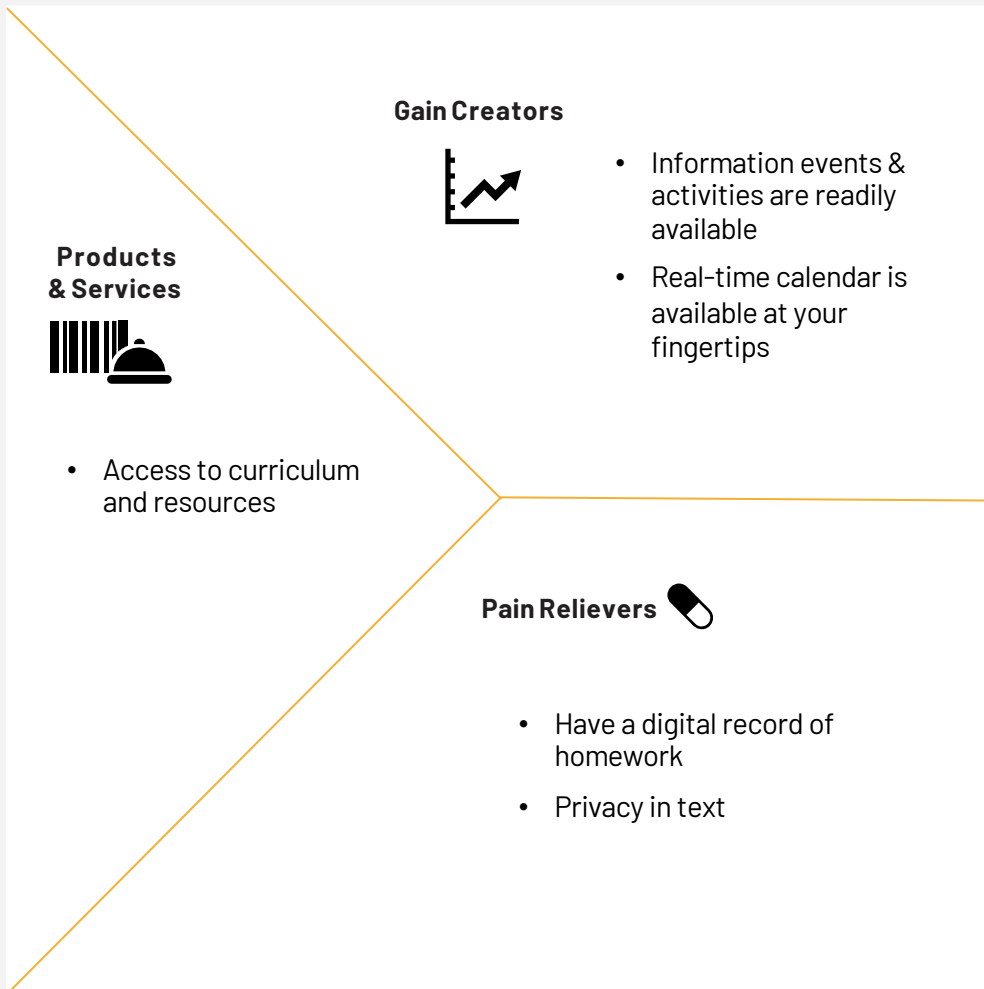
# Value Proposition Canvas – Teachers/Staff



# Value Proposition Canvas – Parents



# Value Proposition Canvas – Student



# 06 Implementation



# Cost Structure

**+\$1,200**

Set-up cost



**+\$350**

Integrate new features  
Compile usage reports



**+\$800**

Business support



**+\$350**

Training cost





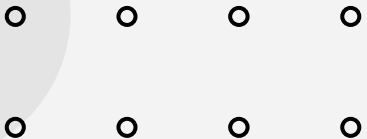
# Revenue Streams

## Subscriptions

The District Board and the school would subscribe to the third party API company on a monthly/yearly basis

## Brokerage Fees

The third party API company would act as an intermediary to provide additional services and maintenance



# Key Partners



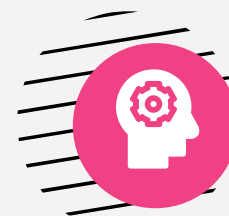
## School

Principal, vice principals, teachers, counselors, and administration



## District Board

Department directors, superintendent, and board of trustees



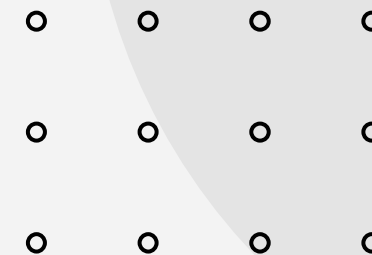
## Designers and Developers

Outsourced creative and research team

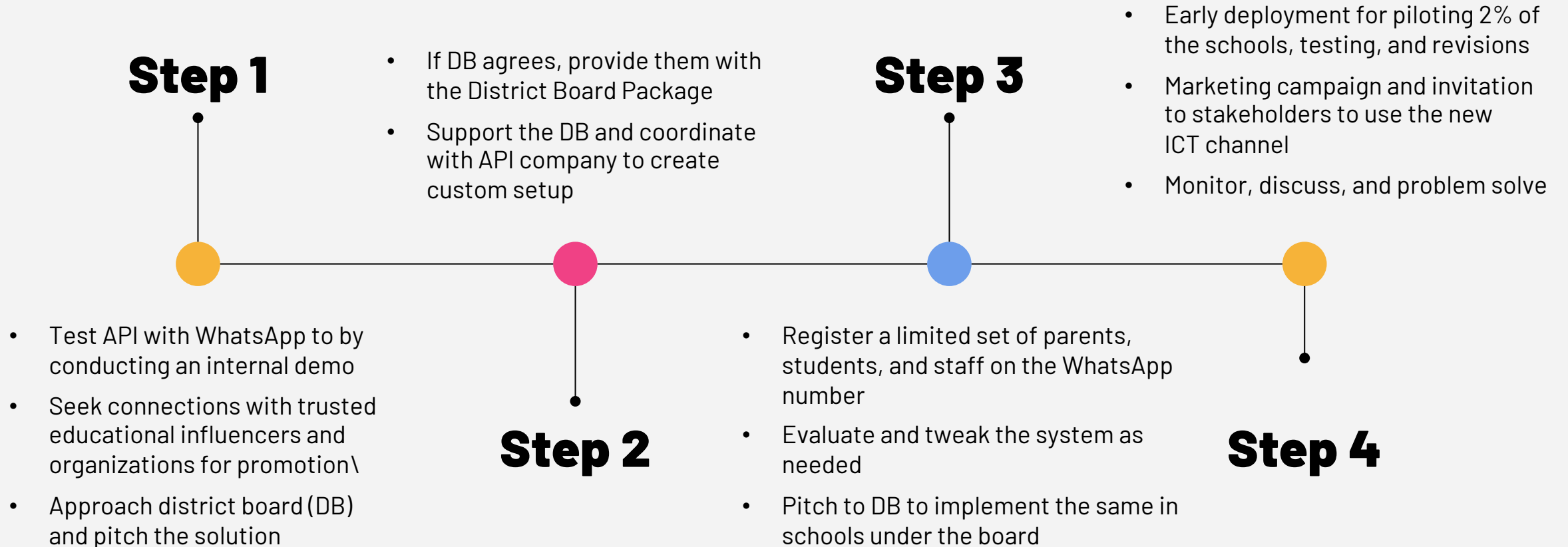


## API Provider

Third party company hired on pay-as-go basis



# Roadmap



## Consistent digital infrastructure

Existing infrastructure from WhatsApp and harness the familiarity of the medium

## Desirable & Flexible

The solution brings value to parents and schools by allowing seamless communication, and can be tailored to the needs of the school

## Partnerships & Collaborations

The partnerships among the key stakeholders are high and collaborate with pioneers within the tech world

## Affordable & accessible

The solution is very affordable but the access to such a concept has to be tailored for each school

## High Quality

AI is one of the leading digital technologies that is utilizes integration of various databases

## Sustainable/ Circular

The solution uses existing capabilities of WhatsApp and Yellow.ai (API) to create a service

# Criteria for Success

90%



95%



75%



80%



95%



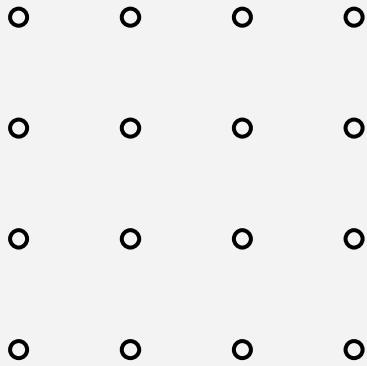
90%



# Final Thoughts

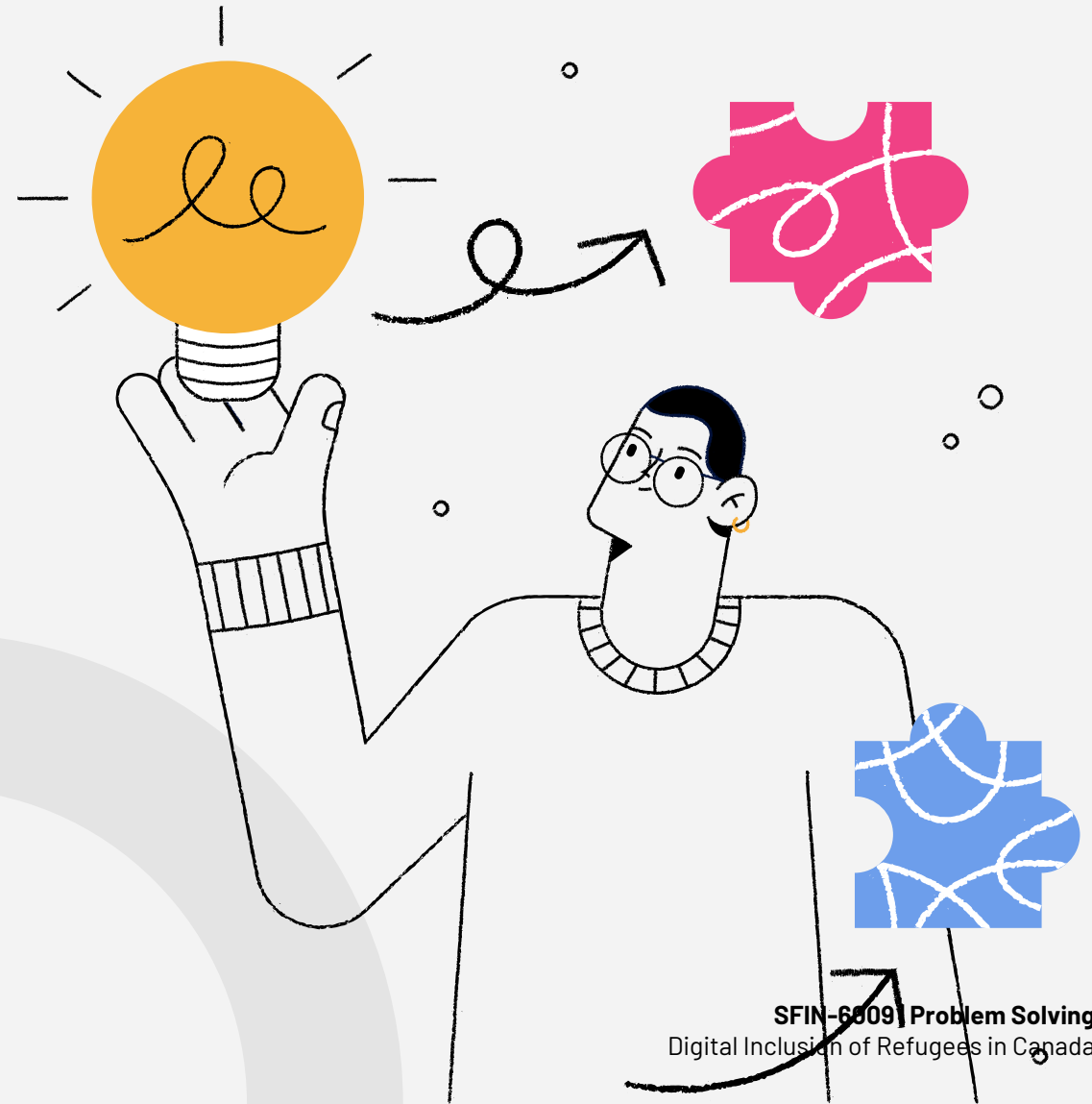
1. We start with targeting the refugee population as our only user group, but the solution has potential to help not only newcomers but also the entire school population. This makes the plan more sustainable in the long run, inclusive to all and desirable for the schools/district to implement.
2. We are also aware of the limitations of WhatsApp. Our solution uses the platform; however, the solution model is transferable to any similar messaging tool such as Telegram.
3. This is not a stand-alone service, but is integrates many platforms and partners, allowing room for expansion and adaptability.





# Thank you!

Questions?



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